

relating to interconnection of MCIm's network to SWBT's network and Network Elements and Ancillary Functions. The agreed upon process shall include procedures for escalating disputes and unresolved issues up through higher levels of each company's management. If MCIm and SWBT do not reach agreement on such a process within forty-five (45) days, any issues that have not been resolved by the Parties with respect to such process shall be submitted to the procedures set forth in the Dispute Resolution Section of Part A, Section 23 of this Agreement, unless both Parties agree to extend the time to reach agreement on such issues.

**15.1.2.1** SWBT shall provide MCIm access for testing at any interface between a SWBT Network Element or combinations and MCIm equipment or facilities. Such test access shall be sufficient to ensure that the applicable requirements can be tested by MCIm. This access shall be available seven (7) days per week, twenty-four (24) hours per day.

**15.1.2.2** MCIm may test any interfaces, Network Elements or Ancillary Functions and additional requirements provided by SWBT pursuant to this Agreement.

**15.1.2.3** SWBT shall provide engineering data as requested by MCIm for the loop components as set forth in Sections 2, 3 and 4 of this Attachment which MCIm may desire to test. Such data shall include equipment engineering and cable specifications, signaling and transmission path data.

**15.1.2.4** Upon MCIm's request, SWBT shall provide to MCIm any office records, central office layout and design records and drawings, system engineering and other applicable documentation pertaining to a Network Element or Ancillary Function or the underlying equipment that is then providing a Network Element or Ancillary Function to MCIm.

**15.1.2.5** SWBT shall provide to MCIm upon request, all applicable test results, from SWBT testing activities on a Network Element or Ancillary Function or Additional Requirement or the underlying equipment providing a Network Element or Ancillary Function or Additional Requirements. MCIm may review such testing results and may notify SWBT of any deficiencies that are detected.

**15.1.2.6 SWBT shall temporarily provision MCIm designated Local Switching features for testing. Within sixty (60) days of the Effective Date of this Agreement, MCIm and SWBT shall mutually agree to the procedures to be established between SWBT and MCIm to expedite such provisioning processes for feature testing.**

**15.1.2.7 Upon MCIm's request, SWBT shall provide technical staff to meet with MCIm representatives to provide required support for Cooperative Testing.**

**15.1.2.8 Dedicated Transport and Loop Feeder may experience alarm conditions due to in-progress tests. SWBT shall not remove such facilities from service without obtaining MCIm's prior approval.**

**15.1.2.9 SWBT shall get acceptance from MCIm prior to conducting tests or maintenance procedures, on Network Elements or Ancillary Functions or on the underlying equipment that is then providing a Network Element or Ancillary Function, that may cause a service interruption or degradation of service.**

**15.1.2.10 SWBT shall provide a single point of contact to MCIm that is available seven (7) days per week, twenty-four (24) hours per day for trouble status, sectionalization, resolution, escalation, and closure. Such staff shall be adequately skilled to allow expeditious problem resolution.**

**15.1.2.11 SWBT shall provide to MCIm electronic access to 105 responders, 100-type test lines, or 102-type test lines associated with any circuits under test.**

**15.1.2.12 SWBT shall participate in Cooperative Testing with MCIm upon MCIm's request to test any operational interface or process used to provide Network Elements, Ancillary Functions or Services to MCIm.**

**15.1.2.13 MCIm and SWBT shall endeavor to complete Cooperative Testing as stated in Attachment VIII.**

**15.1.2.14 SWBT shall participate in Cooperative Testing**

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requested by MCIm whenever it is deemed necessary by MCIm to insure service performance, reliability and subscriber serviceability.

**15.1.2.15** MCIm may accept or reject the Network Element ordered by MCIm if, upon completion of cooperative acceptance testing, the tested Network Element does not meet the requirements stated herein.

## **15.2 Performance**

### **15.2.1 Scope**

This Section addresses performance requirements for Network Elements and Ancillary Functions to provide local service. It includes requirements for the reliability and availability of Network Elements and Ancillary Functions, and quality parameters such as transmission quality (analog and digital), and speed (or delay). In addition, an overview of service performance requirements is provided.

**15.2.1.1** The General Performance Requirements in this section apply to all aspects of Network Elements and Ancillary Functions. Additional requirements are noted in this performance Section and in the individual Network Elements Sections.

**15.2.1.2** SWBT shall work cooperatively with MCIm to determine appropriate performance allocations across Network Elements.

**15.2.2** SWBT shall provide real-time, remote data access to performance monitoring and alarm data on events affecting (or potentially affecting) MCIm's traffic.

**15.2.2.1** SWBT shall provide performance equal to or better than all of the requirements set forth in the technical references listed in Appendix 1.

## **16. Basic 911 and E911**

See Attachment VIII, Section 7.1.1 911 General Requirements

## 17. Directory Assistance Data

This Section sets forth the terms and Conditions under which SWBT agrees to provide Directory Assistance Services (DA Services).

### 17.1 Services

SWBT shall provide the following DA Services:

17.1.1 Directory Assistance (DA) consists of providing subscriber listing information (name, address, and published telephone number or an indication of a non-published status) to MCI's end users who dial 411 or NPA+555+1212 and whenever appropriate, performing Non-Published and Non-List service according to current SWBT methods and practices.

17.1.2 Directory Assistance Call Completion (DACC) is an optional service in which SWBT completes a call to the requested number on behalf of MCI's end user, utilizing an automated voice system or with operator assistance. SWBT shall provide DA with DACC upon request, to the extent technically feasible.

### 17.2 Definitions

The following terms are defined as set forth below:

17.2.1 Non-List Telephone Number means a telephone number that, at the request of the telephone subscriber, is not published in a telephone directory, but is available by calling a SWBT DA operator.

17.2.2 Non-Published Number means a telephone number that, at the request of the telephone subscriber, is neither published in a telephone directory nor provided by a SWBT DA operator.

17.2.3 Published Number means a telephone number that is published in a telephone directory and is available upon request by calling a SWBT DA operator.

17.2.4 Call Branding means the procedure of identifying MCI's name audibly and distinctly to the consumer at the beginning of each MCI DA Services call, and prior to completion of a DACC request. Such branding will be at parity with branding offered by SWBT to its own customers.

### 17.3 Call Branding

Call Branding is the procedure of identifying MCIm's name audibly and distinctly to the consumer at the beginning of each MCIm Operator Services call, and to both parties on a collect call.

SWBT will provide Call Branding *where technically feasible. SWBT will attempt to have software which will permit re-branding without customized routing and a separate trunk group installed by June of 1997. SWBT will unbrand LSP, OS and DA calls handled by live operators in the interim period of software implementation.* [Missouri Award No. 20]:

17.3.1 MCIm obtains the requisite MCIm Identification Code (CIC) from Bellcore or the designated assigning entity; or

17.3.2 MCIm uses common transport, dedicated facilities or trunk groups with a unique NXX to connect SWBT facilities. Where MCIm provides Unbundled Directory Assistance, MCIm's end users will share an NXX also used for SWBT end users. In this event, SWBT operators will refrain from branding calls, when legally permissible to do so. Where calls are mechanically branded, the SWBT brand will remain until the ability to provide MCIm specific brand is available.

17.4 MCIm shall pay an initial non-recurring charge per trunk group for the establishment of Call Branding. ***Interim charges shall be set at TELRIC.*** [Missouri Award No. 5] MCIm will provide voice recorded announcements to SWBT which shall be compatible with SWBT DA systems.

### 17.5 Responsibilities of the Parties

17.5.1 MCIm shall provide the equipment and facilities necessary for signaling and routing calls with Automatic Number Identification (ANI) to each SWBT operator switch. When MCIm seeks DA Services under this Section for the purpose of providing interexchange service it shall order the necessary facilities through SWBT's interstate or intrastate Access Service tariffs. Nothing in this Section in any way changes the manner in which MCIm obtains access service for the purpose of originating or terminating interexchange traffic.

17.5.2 Each Party shall provide facilities necessary for the provision of DA Services, using standard trunk traffic engineering procedures so that the objective grade of service is met. Each Party shall bear the costs for its

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own facilities. MCIIm shall bear the costs of facilities necessary for signaling and routing calls with Automatic Number Identification (ANI) to each SWBT operator switch. SWBT shall bear the cost of facilities and equipment necessary to provide DA Services.

17.5.3 MCIIm shall furnish in writing to SWBT, thirty (30) days in advance of the date when the DA Services are to be undertaken, all end user listing records and information required by SWBT to provide the DA Services.

17.5.4 MCIIm shall keep end user listing records current using reporting forms and procedures that are mutually acceptable to both Parties, and will inform SWBT, in writing, of any changes to be made to such records. MCIIm shall send the DA listing records to SWBT via a local manual service order, T-TRAN, magnetic tape or by any other mutually agreed to format or media.

17.5.5 SWBT DA operators shall provide DA Services Rate/Reference Information upon request to MCIIm's end users. MCIIm shall furnish Rate Information in a mutually acceptable format or media thirty (30) days in advance of the date when the DA Services are to be undertaken. MCIIm shall inform SWBT, in writing, of any changes to be made to such Rate/Reference Information according to a mutually agreed upon schedule. MCIIm shall pay an initial non-recurring charge for loading of MCIIm's DA Services Rate/Reference Information. MCIIm shall pay an additional non-recurring charge for each subsequent change to MCIIm's DA Services Rate/Reference Information. ***The interim charge for such changes shall be set at TELRIC pursuant to the Commission's Arbitration Order.*** [Missouri Award No. 5]

17.5.6 SWBT shall accumulate and provide MCIIm data for MCIIm's use to verify traffic volumes and bill its end users.

17.5.7 The specific DA call branding phrase provided to SWBT by MCIIm to be used to identify MCIIm will be mutually agreed to by both Parties and provided by MCIIm.

## 17.6 Methods and Practices

SWBT shall provide the DA Services in accordance with the DA methods and practices in effect for SWBT at the time the call is made, unless otherwise agreed

in writing by both Parties.

#### 17.7 Basis of Compensation

MCIm shall compensate SWBT for DA services based on the rates in Attachment I.

### 18. Operator Services

This Section sets forth the terms and Conditions under which SWBT shall provide Operator Services to MCIm.

#### 18.1 Services

SWBT shall provide the following Operator Services:

18.1.1 Fully Automated Call Processing (FACP) - Allows the caller to complete a call utilizing equipment without the assistance of a SWBT operator, hereafter called "Operator."

FACP allows the caller the option of completing calls through an automated alternate billing system (AABS). Automated functions can only be activated from a touch tone telephone. Use of a rotary telephone and failure or low response by the caller to the audio prompts will bridge the caller to an Operator for assistance. The called Party must also have Touch-tone service to accept calls that are billed collect or to a third number.

18.1.2 Operator-Assisted Call Processing - Allows the caller to complete a call by receiving assistance from an Operator.

#### 18.2 Call Types

##### 18.2.1 Fully Automated Call Processing

SWBT shall support the following fully automated call types to MCIm:

18.2.1.1 Fully Automated Calling Card Station-to-Station-A service provided when the caller dials zero ("0") or MCIm's **access code**, plus the desired telephone number and the telecommunications calling card number to which the call is to be charged. The call is completed without the assistance of a live

operator. An authorized telecommunications calling card for the purpose of this Section, is one for which SWBT can perform billing validation. Fully-Automated Calling Card Call Processing may also include the following situations:

18.2.1.1.1 When an individual with a disability dials zero and identifies himself or herself as disabled, he or she will provide the operator the desired telephone number and the calling card number to which the call is to be billed.

18.2.1.1.2 When due to trouble on the network or lack of service components, Automated Call Processing cannot be completed without assistance from an operator.

18.2.1.1.3 When an operator reestablishes an interrupted call that meets any of the situations described in this call type.

18.2.2 Fully Automated Station-to-Station - This service is limited to those calls placed collect or billed to a third number. The caller dials zero or MCI's access code, plus the telephone number desired, the service selection codes and/or billing information as instructed by the automated equipment. The call is completed without the assistance of an operator. This service may also include the following situations:

18.2.2.1 When an individual with a disability identifies himself or herself as disabled and provides the operator the number to which the call is to be billed (either collect or third number).

18.2.2.2 When due to trouble on the network or lack of service components, Automated Call Processing cannot be completed without assistance from an operator.

18.2.2.3 When an operator re-establishes an interrupted call that meets any of the situations described in this call type.

### 18.3 Operator-Assisted Call Processing

SWBT shall support the following operator-assisted call types to MCI:

18.3.1 Semi-Automated Station-to-Station - A service provided when the



caller dials zero or **MCIm's access code**, plus the telephone number desired and the call is completed with the assistance of an operator. This service may also include the following situations:

18.3.1.1 Where the caller does not dial zero prior to calling the number desired from a public or semi-public telephone, or from a telephone where the call is routed directly to an operator (excluding calling card calls).

18.3.1.2 When an operator re-establishes an interrupted call that meets any of the situations described in this call type.

18.3.2 Semi-Automated Person-to-Person - A service in which the caller dials zero or **MCIm's access code**, plus the telephone number desired and specifies to the operator the particular person to be reached or a particular PBX station, department or office to be reached through a PBX attendant. This service applies even if the caller agrees, after the connection is established, to speak to any Party other than the Party previously specified. This service may also include:

18.3.2.1 Where the caller does not dial a zero prior to dialing the number from a public or semi-public telephone, or where the call is routed directly to an operator.

18.3.2.2 When an operator re-establishes an interrupted call that meets any of the situations described in this call type.

18.3.3 Semi-Automated Calling Card Station-to-Station - A service provided when the caller dials zero or **MCIm's access code**, plus the desired telephone number, then gives to the operator the calling card number to which the call is to be charged. The service may also include the following situations:

18.3.3.1 When the caller does not dial zero prior to dialing the number desired from a public or semi-public telephone, or from a telephone that is directly routed to an operator, and the call is billed to a calling card.

18.3.3.2 When an operator re-establishes an interrupted call that meets any of the situations described in this call type.

18.3.4 Station-to-Station (Operator Handled) - A service provided when the caller dials zero or **MCIm's access code plus zero**, and places a sent paid, collect, third number or calling card station-to-station call using an operator's assistance. These calls may originate from a private, public or semi-public telephone. The service may also include the situation when an operator re-establishes an interrupted call that meets any of the situations described in this call type.

18.3.5 Person-to-Person (Operator Handled) - A service in which the caller dials zero or **MCIm's access code plus zero**, and specifies to the operator the number desired and the person to be reached, or a particular PBX station, department or office to be reached through a PBX attendant, or a particular mobile service point to be reached through a mobile telephone attendant. The call remains a person-to-person call even if the caller agrees, after the connection is established, to speak to any party other than the party previously specified. The service may also include situations when an operator re-establishes an interrupted call that meets any of the situations described in this call type.

18.3.6 Busy Line Verification - A service in which the caller asks the operator to determine whether an access line is in use.

18.3.7 Emergency Interrupt - A service in which the caller asks the operator to interrupt a conversation in progress, to determine if one of the parties is willing to speak to the caller requesting the interrupt. A Busy Line Verification charge will apply even if the parties interrupted refuse to terminate the conversation in progress.

18.3.8 Operator Transfer Service - A service offered by SWBT to MCIm in which the local caller requires Operator Assistance for completion of a call outside the originating LATA. The SWBT Operator transfers the call to an interexchange carrier selected by the caller from a list of IXC's provided to SWBT by MCIm. This transfer service is similar to SWBT's "Operator Transfer" service offering. MCIm agrees to obtain all necessary compensation arrangements between MCIm and participating carriers.

18.4 Call Branding is the procedure of identifying MCIm's name audibly and distinctly to the consumer at the beginning of each MCIm Operator Services call, and to both parties on a collect call.

18.4.1 SWBT will provide Call-Branding *where technically feasible*.  
*SWBT will attempt to have software which will permit re-branding without*

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*customized routing and a separate trunk group installed by June of 1997. SWBT will unbrand MCIm's OS calls handled by live operators in the interim period of software implementation. [Missouri Award No. 20]:*

18.4.2 Call Branding is only provided under the following terms and conditions:

18.4.2.1 MCIm obtains the requisite MCIm Identification Code (CIC) from Bellcore or the designated assigning entity; or

18.4.2.2 MCIm uses common transport, dedicated facilities or trunk groups with unique NXX to connect to SWBT facilities. Where MCIm provides Unbundled Operator Services, MCIm's end users will share an NXX also used for SWBT end users. In this event, SWBT operators will refrain from branding OS calls, when legally permissible to do so. Where calls are mechanically branded, the SWBT brand will remain until the ability to provide MCIm specific brand is available.

18.4.3 MCIm shall pay an initial non-recurring charge per trunk group for the establishment of Call Branding as well as a charge per trunk to change the brand. *Interim charges shall be based on TELRIC pursuant to the Commission's Arbitration Order. [Missouri Award No. 5]*

18.4.4 MCIm will provide to SWBT the specific branding phrase in a mutually agreed to format to be used to identify MCIm's name audibly and distinctly to the consumer at the beginning of each Operator Services call, and to both parties on an automated collect call. This phrase will be consistent with the general form and content used by the Parties in branding their respective services.

#### 18.5 Handling of Emergency Calls to Operator

To the extent an MCIm's NXX encompasses multiple emergency agencies, SWBT shall query the caller on his/her community and transfer the caller to the appropriate emergency agency for the caller's area. MCIm must provide SWBT with the correct information to enable the transfer. When the assistance of another MCIm operator is required, SWBT will attempt to reach the appropriate operator if the network facilities for inward assistance exist.

#### 18.6 Responsibilities of the Parties

18.6.1 SWBT shall provide Operator Services only where the necessary physical facilities are available and in place and under conditions stated in this Section.

18.6.2 MCIm shall provide the equipment and facilities necessary for signaling and routing calls with Automatic Number Identification (ANI) to each SWBT operator switch. When MCIm seeks Operator Services under this Section for the purpose of providing interexchange service it shall order the necessary facilities through SWBT's interstate or intrastate Access Service tariffs. Nothing in this Section in any way changes the manner in which an interexchange carrier obtains access service for the purpose of originating or terminating interexchange traffic.

18.6.3 Each Party shall provide facilities necessary for the provision of Operator Services using standard trunk traffic engineering procedures so that the objective grade of service is met. Each Party shall bear the costs for its own facilities. MCIm shall bear the costs of facilities necessary for signaling and routing calls with Automatic Number Identification (ANI) to each SWBT operator switch. SWBT shall bear the cost of facilities and equipment necessary to provide Operator Services.

18.6.4 MCIm shall provide to SWBT records necessary for SWBT to provide operator service to MCIm. MCIm shall provide the initial records by a date **mutually agreed to** by SWBT and MCIm, in advance of the date when OS are to be undertaken. MCIm shall keep such records current by using reporting forms and procedures that are used by to SWBT, and shall inform SWBT in advance of any changes to be made in such records. SWBT shall specify the required interval for such advance notice. MCIm shall provide all records and changes to records to SWBT in writing or in any other mutually agreeable format.

18.6.5 SWBT operators shall provide Operator Services Rate/Reference Information upon request to MCIm's end users. MCIm shall furnish such information in a mutually agreed to format or media thirty (30) days in advance of the date when the Operator Services are to be undertaken. MCIm shall inform SWBT, in writing, of any changes to be made to such Rate Information according to a mutually agreed upon schedule. MCIm shall pay an initial non-recurring charge for loading of MCIm's Operator Services Rate Information. MCIm shall pay an additional non-recurring charge for each subsequent change to MCIm's Operator Services Rate Information.

18.6.6 SWBT shall accumulate and provide to MCIm data for MCIm's use to verify traffic volumes and bill its end users.

18.6.7 The specific Operator Services call branding phrase provided by MCIm will be mutually agreed to by SWBT and MCIm.

#### 18.7 Methods and Practices

SWBT shall provide the Operator Services in accordance with the operator methods and practices in effect for SWBT at the time the call is made, unless otherwise agreed to in writing by both Parties.

#### 18.8 Basis of Compensation

MCIm shall compensate SWBT for Operator Services based on the rates in Attachment I.

#### 18.9 Terms of Section

18.9.1 This Section shall continue in force and effect for a term specified by MCIm, not to exceed the term of this Agreement and not to be shorter than six (6) months for the initial provision of OS hereunder. If MCIm terminates this Section prior to the specified term of this Section, MCIm shall pay, within thirty (30) days of the issuance of a final bill by SWBT, all amounts due for actual services provided under this Section, plus estimated monthly charges for the remainder of the term. Estimated charges shall be based on an average of the actual monthly amounts billed by SWBT pursuant to this Section prior to its termination.

## APPENDIX 1

## TECHNICAL REFERENCE SCHEDULE

1. Unbundled Network Elements1.1 Unbundled Loop Transmission

**Belcore TA-NWT-000393**  
**ANSI T1.413-1995 Specifications**  
**ANSI T1.403-1989, Carrier to Customer Installation, DS1 Metallic Interface Specification**  
**AM TR-TMO-000122**  
**AM TR-TMO-000123**  
**Belcore TR-NWT-000393, Generic Requirements for ISDN Basic Access Digital Subscriber Lines**  
**ANSI T1.102-1993, American National Standard for Telecommunication - Digital Hierarchy - Electrical Interfaces**  
**ANSI T1.413-1995**  
**ANSI T1E1 Committee Technical report Number 28**  
**Belcore Technical Requirement TR-NWT-000499, Issue 5, December 1993, section 7**  
**Belcore TR-TSY-000008 Digital Interface Between the SLC Digital Loop**  
**Belcore TR-TSY-000673, Operation System**  
**Belcore Integrated Digital Loop Carrier**  
**Carrier System and Local Digital Switch, Issue 2, August 1987**  
**Interface for an IDLC System (LSSGR) FSD 20-02-2100, Issue 1, September 1989**  
**System General Requirements, Objectives and Interface, GR 303-CORE, Issue 1, September 1995**

1.2 Local Switching

**Belcore FR-NWT-000064 (Local Switching Systems General Requirements)**  
**Belcore GR-1432-CORE (TCAP)**  
**Belcore GR-905-CORE (ISUP)**  
**Belcore GR-1429-CORE (Call Management)**  
**Belcore GR-1357-CORE (Switched Fractional DS1)**  
**Belcore GR-1428-CORE (Toll Free Service)**  
**Belcore GR-1597-CORE (Calling Name)**  
**Belcore GR-954-CORE (Line Information Database)**  
**Belcore GR-2863-CORE (Advanced Intelligent Network)**

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**GR-1298-CORE, AIN Switching System Generic Requirements**  
**GR-1299-CORE, AIN Switch-Service Control Point (SCP)/Adjunct Interface**  
**Generic Requirements**  
**TR-NWT-001284, AIN 0.1 Switching System Generic Requirements**  
**SR-NWT-002247, AIN Release 1 Update**  
**ANSI standards Q.931, Q.932**  
**Bellcore TR-NWT-08**  
**Bellcore TR-NWT-303**  
**TR-NWT-000393, January 1991, Generic Requirements for ISDN Basic**  
**Access Digital Subscriber Lines**

### **1.3 Dedicated and Shared Transport**

**ANSI T1.101-1994, American National Standard for Telecommunications -**  
**Synchronization Interface Standard Performance and Availability**  
**ANSI T1.102-1993, American National Standard for Telecommunications -**  
**Digital Hierarchy - Electrical Interfaces**  
**ANSI T1.105-1995, American National Standard for Telecommunications -**  
**Synchronous Optical Network (SONET) - Basic Description including**  
**Multiplex Structure, Rates and Formats**  
**ANSI T1.105.01-1995, American National Standard for Telecommunications**  
**-Synchronous Optical Network (SONET) - Automatic Protection**  
**Switching**  
**ANSI T1.105.02-1995, American National Standard for Telecommunications**  
**-Synchronous Optical Network (SONET) - Payload Mappings**  
**ANSI T1.105.03-1994, American National Standard for Telecommunications**  
**-Synchronous Optical Network (SONET) - Jitter at Network**  
**Interfaces**  
**ANSI T1.105.03a-1995, American National Standard for**  
**Telecommunications -Synchronous Optical Network (SONET): Jitter**  
**at Network Interfaces - DS1 Supplement**  
**ANSI T1.105.04-1995, American National Standard for Telecommunications**  
**-Synchronous Optical Network (SONET) - Data Communication**  
**Channel Protocols and Architectures**  
**ANSI T1.105.05-1994, American National Standard for Telecommunications**  
**-Synchronous Optical Network (SONET) - Tandem Connection**  
**ANSI T1.105.06-199x, American National Standard for Telecommunications**  
**Synchronous Optical Network (SONET) - Physical Layer**  
**Specifications**  
**ANSI T1.106-1988, American National Standard for Telecommunications -**  
**Digital Hierarchy - Optical Interface Specifications (Single Mode)**  
**ANSI T1.107-1988, American National Standard for Telecommunications -**

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*Conformed to Award but disagreed to by SWBT.* **Bold Underline** = **SWBT language disagreed to**  
**by MCIm.**

**Digital Hierarchy - Formats Specifications**

- ANSI T1.107a-1990, American National Standard for Telecommunications - Digital Hierarchy - Supplement to Formats Specifications (DS3 Format Applications)**
- ANSI T1.107b-1991, American National Standard for Telecommunications - Digital Hierarchy - Supplement to Formats Specifications**
- ANSI T1.117-1991, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (SONET) (Single Mode - Short Reach)**
- ANSI T1.119-1994, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Operations, Administration, Maintenance, and Provisioning (OAM&P) Communications**
- ANSI T1.119.01-1995, American National Standard for Telecommunications -Synchronous Optical Network (SONET) - Operations, Administration, Maintenance, and Provisioning (OAM&P) Communications Protection Switching Fragment**
- ANSI T1.119.02-199x, American National Standard for Telecommunications -Synchronous Optical Network (SONET) - Operations, Administration, Maintenance, and Provisioning (OAM&P) Communications Performance Monitoring Fragment**
- ANSI T1.231-1993, American National Standard for Telecommunications - Digital Hierarchy - Layer 1 In-Service Digital Transmission Performance Monitoring**
- ANSI T1.404-1994, Network-to-Customer Installation - DS3 Metallic Interface Specification**
- Belcore FR-440 and TR-NWT-000499, Transport Systems Generic Requirements (TSGR): Common Requirements**
- Belcore GR-820-CORE, Generic Transmission Surveillance: DS1 & DS3 Performance**
- Belcore GR-253-CORE, Synchronous Optical Network Systems (SONET); Common Generic Criteria**
- Belcore TR-NWT 000507, Transmission, Section 7, Issue 5 (Bellcore, December 1993). (A module of LSSGR, FR-NWT-000064.)**
- Belcore TR-NWT-000776, Network Interface Description for ISDN Customer Access**
- Belcore TR-INS-000342, High-Capacity Digital Special Access Service- Transmission Parameter Limits and Interface Combinations, Issue 1, February 1991**

**1.4 Signaling Transfer Points (STPs)**

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ANSI T1.111.2

ANSI T1.111.3

ANSI T1.111.4

ANSI T1.112

ANSI T1.112.4

ANSI T1.118

ANSI T1.111.6

ANSI T1.112.5

**GR-2863-CORE, CCS Network Interface Specification Supporting  
Advanced Intelligent Network (AIN)**

**GR-2902-CORE, CCS Network Interface Specification (CCSNIS)  
Supporting Toll-Free Service Using Advanced Intelligent Network  
(AIN)**

**Bellcore GR-905-CORE, Common Channel Signaling Network Interface  
Specification (CCSNIS) Supporting Network Interconnection,  
Message Transfer Part (MTP), and Integrated Services Digital  
Network User Part (ISDNUP)**

**Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS)  
Supporting Signaling Connection Control Part (SCCP) and  
Transaction Capabilities Application Part (TCAP)**

**ANSI T1.111-1992, American National Standard for Telecommunications -  
Signaling System Number 7 (SS7) - Message Transfer Part (MTP)**

**ANSI T1.111A-1994, American National Standard for Telecommunications -  
Signaling System Number 7 (SS7) - Message Transfer Part (MTP)  
Supplement**

**ANSI T1.112-1992, American National Standard for Telecommunications -  
Signaling System Number 7 (SS7) - Signaling Connection Control  
Part (SCCP)**

**ANSI T1.115-1990, American National Standard for Telecommunications -  
Signaling System Number 7 (SS7) - Monitoring and Measurements  
for Networks**

**ANSI T1.116-1990, American National Standard for Telecommunications -  
Signaling System Number 7 (SS7) - Operations, Maintenance and  
Administration Part (OMAP)**

**ANSI T1.118-1992, American National Standard for Telecommunications -  
Signaling System Number 7 (SS7) - Intermediate Signaling Network  
Identification (ISNI)**

**Bellcore GR-905-CORE, Common Channel Signaling Network Interface  
Specification (CCSNIS) Supporting Network Interconnection,  
Message Transfer Part (MTP), and Integrated Services Digital  
Network User Part (ISDNUP)**

**Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS)**

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*Conformed to Award but disagreed to by SWBT*. **Bold Underline** = **SWBT language disagreed to  
by MCIm.**

## Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP)

### 1.5 Service Control Points (SCPs)/Call-Related Databases

SR-TSV-002275 (BOC Notes on the Ameritech Networks, SR-TSV-002275, Issue 2 (Bellcore, April 1994))  
 GR-246-CORE, Bell Communications Research Specification of Signaling System Number 7, ISSUE 1 (Bellcore, December 1995)  
 GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP). (Bellcore, March 1994)  
 GR-954-CORE, CCS Network Interface Specification (CCSNIS) Supporting Line Information Database (LIDB) Service 6, Issue 1, Rev. 1 (Bellcore, October 1995)  
 GR-1149-CORE, OSSGR Section 10: System Interfaces, Issue 1 (Bellcore, October 1995) (Replaces TR-NWT-001149)  
 GR-1158-CORE, OSSGR Section 22.3: Line Information Database 6, Issue (Bellcore, October 1995)  
 GR-1428-CORE, CCS Network Interface Specification (CCSNIS) Supporting Toll Free Service (Bellcore, May 1995)  
 BOC Notes on Ameritech Networks, SR-TSV-002275, ISSUE 2 (Bellcore, April 1994)  
 GR-1280-CORE, AIN Service Control Point (SCP) Generic Requirements

### 1.6 Tandem Switching

Bellcore TR-TSY-000540, Issue 2R2, Tandem Supplement, 6/1/90  
 GR-905-CORE  
 GR-1429-CORE  
 GR-2863-CORE  
 GR-2902-CORE

### 1.7 Performance Standards

Bellcore FR-64, LATA Switching Systems Generic Requirements (LSSGR)  
 Bellcore TR-NWT-000499, Issue 5, Rev 1, April 1992, Transport Systems Generic Requirements (TSGR): Common Requirements  
 Bellcore TR-NWT-000418, Issue 2, December 1992, Generic Reliability Assurance Requirements For Fiber Optic Transport Systems  
 Bellcore TR-NWT-000057, Issue 2, January 1993, Functional Criteria for

**Digital Loop Carriers Systems**

**Bellcore TR-NWT-000507, Issue 5, December 1993, LSSGR - Transmission, Section 7**

**Bellcore TR-TSY-000511, Issue 2, July 1987, Service Standards, a Module (Section 11) of LATA Switching Systems Generic Requirements (LSSGR, FR-NWT-000064)**

**Bellcore TR-NWT-000393, January 1991, Generic Requirements for ISDN Basic Access Digital Subscriber Lines**

**Bellcore TR-NWT-000909, December 1991, Generic Requirements and Objectives for Fiber In The Loop Systems**

**GR-303-CORE, Issue 1, September 1995, Integrated Digital Loop Carrier System Generic Requirements, Objectives and Interface**

**Bellcore TR-NWT-000505, Issue 3, May 1991, LSSGR Section 5, Call Processing**

**Bellcore LSSGR TR-TSY-000511**

**Bellcore TR-NWT-001244, Clocks for the Synchronized Network: Common Generic Criteria**

**ANSI T1.105-1995**

**ANSI T1.512-1994 Network Performance - Point-to-Point Voice-Grade Special Access Network Voiceband Data Transmission Objectives**

**1.8 Network Interface Device**

**Bellcore Technical Advisory TA-TSY-000120, "Customer Premises or Network Ground Wire"**

**Bellcore Generic Requirement GR-49-CORE, "Generic Requirements for Outdoor Telephone Network Interface Devices"**

**Bellcore Technical Requirement TR-NWT-00239, "Indoor Telephone Network Interfaces"**

**Bellcore Technical Requirement TR-NWT-000937, "Generic Requirements for Outdoor and Indoor Building Entrance"**

**2. Interconnection****2.1 Trunking Interconnection**

**GR-317-CORE, Switching System Generic Requirements for Call Control Using the Integrated Services Digital Network User Part (ISDNUP), Bellcore, February, 1994**

**GR-394-CORE, Switching System Generic Requirements for Interexchange Carrier Interconnection Using the Integrated Services Digital Network User Part (ISDNUP), Bellcore, February, 1994**

**FR-NWT-000064, LATA Switching Systems Generic Requirements  
(LSSGR), Bellcore, 1994 Edition**

**ANSI T1.111**

**ANSI T1.112**

**ANSI T1.113**

**Bellcore GR-905-CORE, Common Channel Signaling Network Interface  
Specification (CCSNIS) Supporting Network Interconnection,  
Message Transfer Part (MTP), and Integrated Services Digital  
Network User Part (ISDNUP)**

**Bellcore GR-1428-CORE, CCS Network Interface Specification (CCSNIS)  
Supporting Toll-Free Service**

**Bellcore GR-1429-CORE, CCS Network Interface Specification (CCSNIS)  
Supporting Call Management Services**

**Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS)  
Supporting Signaling Connection Control Part (SCCP) and  
Transaction Capabilities Application Part (TCAP)**

**ANSI T1.110-1992, American National Standard Telecommunications -  
Signaling System Number 7 (SS7) - General Information;**

**ANSI T1.111-1992, American National Standard for Telecommunications -  
Signaling System Number 7 (SS7) - Message Transfer Part (MTP)**

**ANSI T1.111A-1994, American National Standard for Telecommunications -  
Signaling System Number 7 (SS7) - Message Transfer Part (MTP)  
Supplement**

**ANSI T1.112-1992, American National Standard for Telecommunications -  
Signaling System Number 7 (SS7) - Signaling Connection Control  
Part (SCCP)**

**ANSI T1.113-1995, American National Standard for Telecommunications -  
Signaling System Number 7 (SS7) - Integrated Services Digital  
Network (ISDN) User Part**

**ANSI T1.114-1992, American National Standard for Telecommunications -  
Signaling System Number 7 (SS7) - Transaction Capabilities  
Application Part (TCAP)**

**ANSI T1.115-1990, American National Standard for Telecommunications -  
Signaling System Number 7 (SS7) - Monitoring and Measurements  
for Networks**

**ANSI T1.116-1990, American National Standard for Telecommunications -  
Signaling System Number 7 (SS7) - Operations, Maintenance and  
Administration Part (OMAP)**

**ANSI T1.118-1992, American National Standard for Telecommunications -  
Signaling System Number 7 (SS7) - Intermediate Signaling Network  
Identification (ISNI)**

**Bellcore GR-905-CORE, Common Channel Signaling Network Interface**

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Specification (CCSNIS) Supporting Network Interconnection,  
 Message Transfer Part (MTP), and Integrated Services Digital  
 Network User Part (ISDNUP)  
 Bellcore GR-954-CORE, CCS Network Interface Specification (CCSNIS)  
 Supporting Line Information Database (LIDB) Service  
 Bellcore Special Report SR-TSV-002275, BOC Notes on the LEC Networks-  
 Signaling  
 Bellcore Standard FR-NWT-000476  
 ANSI Standard T1.206

## 2.2 Electrical/Optical Interfaces

Bellcore Technical Publication TR-INS-000342, High Capacity Digital  
 Special Access Service, Transmission Parameter Limits and Interface  
 Combinations;

## 2.3 Collocation

Bellcore Network Equipment Building Systems (NEBS) standards TR-EOP-  
 000063  
 National Electrical Code (NEC) use latest issue  
 TA-NPL-000286, NEBS Generic Engineering Requirements for  
 System Assembly and Cable Distribution, Issue 2 (Bellcore, January  
 1989)  
 TR-EOP-000063, Network Equipment-Building System (NEBS) Generic  
 Equipment Requirements, Issue 3, March 1988  
 TR-NWT-000840, Supplier Support Generic Requirements (SSGR), (A  
 Module of LSSGR, FR-NWT-000064), Issue 1 (Bellcore, December  
 1991)  
 TR-NWT-001275 Central Office Environment Installations/Removal Generic  
 Requirements, Issue 1, January 1993  
 Institute of Electrical and Electronics Engineers (IEEE) Standard 383, IEEE  
 Standard for Type Test of Class 1 E Electrical Cables, Field Splices,  
 and Connections for Nuclear Power Generating Stations  
 National Electrical Code (NEC) use latest issue  
 TA-NPL-000286, NEBS Generic Engineering Requirements for System  
 Assembly and Cable Distribution, Issue 2 (Bellcore, January 1989)  
 TR-EOP-000063, Network Equipment-Building System (NEBS) Generic  
 Equipment Requirements, Issue 3, March 1988  
 TR-EOP-000151, Generic Requirements for 24-, 48-, 130- and 140- Volt  
 Central Office Power Plant Rectifiers, Issue 1 (Bellcore, May 1985)  
 TR-EOP-000232, General Requirements for Lead-Acid Storage Batteries,  
 Issue 1 (Bellcore, June 1985)

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Key: Regular Text = MCI/MSWBT negotiated language; **Bold Text** = MCI/MSWBT language disagreed to by SWBT; *Italics* = Missouri PSC Arbitration Award and stipulation language. ***Bold Italics*** = *Conformed to Award but disagreed to by SWBT*. **Bold Underline** = SWBT language disagreed to by MCI/MSWBT.

**TR-NWT-000154, General Requirements for 24-, 48-, 130-, and 140- Volt  
Central Office Power Plant Control and Distribution Equipment,  
Issue 2 (Bellcore, January 1992)**

**TR-NWT-000295, Isolated Ground Planes: Definition and Application to  
Telephone Central Offices, Issue 2 (Bellcore, July 1992)**

**TR-NWT-000840, Supplier Support Generic Requirements (SSGR), (A  
Module of LSSGR, FR-NWT-000064), Issue 1 (Bellcore, December  
1991)**

**TR-NWT-001275, Central Office Environment Installations/Removal  
Generic Requirements, Issue 1, January 1993  
Underwriters' Laboratories Standard, UL 94**

#### **2.4 Distribution**

**Bellcore TR-TSY-000057, "Functional Criteria for Digital Loop Carrier  
Systems**

## APPENDIX CUSTOMIZED ROUTING

1.0 When MCIm requests Customized Routing, either through Unbundled Local Switching or Resale, SWBT will route local operator and directory assistance calls to MCIm's Operator Services and Directory Assistance platforms. In addition, at MCIm's request, for the Unbundled Local Switching element, SWBT will route local calls to MCIm designated facilities rather than to SWBT's common network.

### 2.0 Customized Routing of MCIm Directory Assistance and Operator Services

2.1 Where MCIm purchases Unbundled Local Switching or Resale and elects to provide Directory Assistance and Operator Services to its customers through its own Directory Assistance and Operator Services platforms, SWBT will provide the functionality and features required to route calls from MCIm customers for Directory Assistance and Operator Services to MCIm designated trunks for the provision of MCIm Directory Assistance and Operator Services, in accordance with this Attachment.

2.2 Customized Routing of Directory Assistance and Operator Services will be provided on those SWBT switches with existing capabilities and capacity (e.g. by utilizing line class code or similar method). For those switches that lack the existing capability and/or capacity to support Customized Routing, SWBT will develop alternative method(s) (e.g., AIN based method) of providing Customized Routing of Directory Assistance and Operator Services. SWBT will complete implementation of said alternative method(s) by December 31, 1997. The schedule for development of alternative method(s) is dependent upon the ability of SWBT's vendor to meet its current commitment; however, SWBT will use its best efforts to manage the vendor to meet said date. Where MCIm orders Customized Routing and/or any special blocking/screening requirements, (e.g., 900 blocking, toll restriction) such order must be placed on a per class of service basis in each end office. **SWBT will fulfill orders for particular Customized Routing arrangements within 30 work days following receipt of a completed Customized Routing Order for the relevant switches from MCIm, unless the Parties agree to a different schedule.** Where it is not technically feasible to meet MCIm's requests through available SWBT network resources, SWBT will advise MCIm within 15 working days after order receipt.

**SWBT 2.2-1 SWBT requires thirty (30) working days to analyze initial requests for custom routing and develop price quotes, and four (4) months to**

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